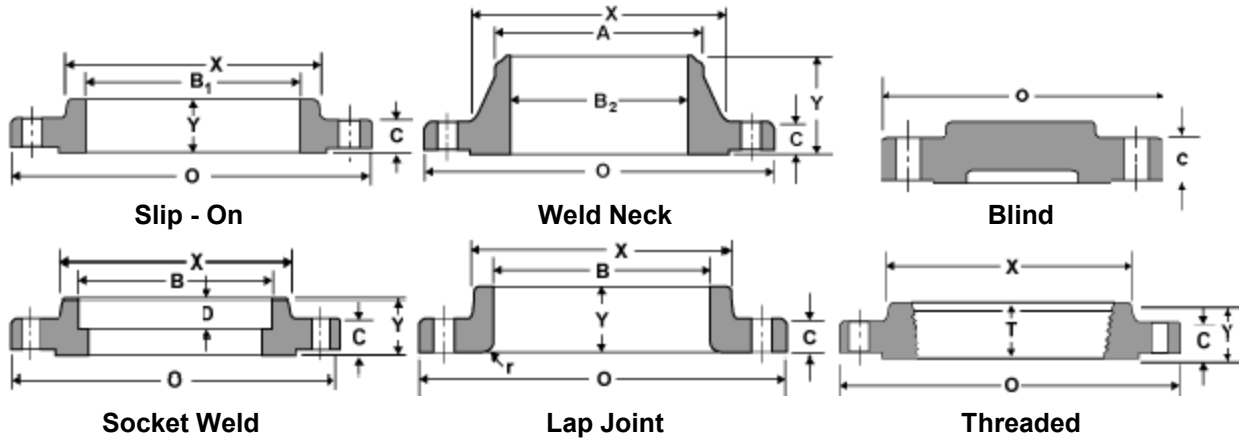


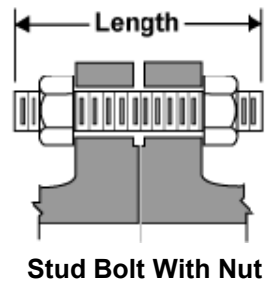
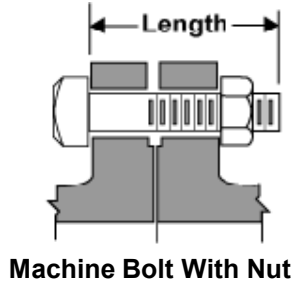
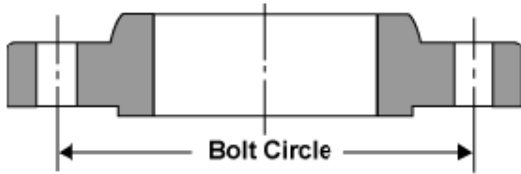
# Class 150 Flanges • Dimensional Specification



Pipe Size	O	C	X	A	Y	Y	Y	T	B1	B	B2	r	D
	Outside Dia. of Flange	Thickness of Flange, Min.	Dia. of Hub	Dia. of Weld neck	Thd. Slip-On	Lap-Joint	Weld Neck	Thd. Lgth. Thd. Flange Min.	Slip-On, Min.	Lap-Joint, Min.	Weld neck / Socket Weld	Lap-Joint Flange Radius	Depth of Socket
1/2"	3.50	0.44	1.19	0.84	0.62	0.62	1.88	0.62	0.88	0.90	0.62	0.12	0.38
3/4"	3.88	0.50	1.50	1.05	0.62	0.62	2.06	0.62	1.09	1.11	0.82	0.12	0.44
1"	4.25	0.56	1.94	1.32	0.69	0.69	2.19	0.69	1.36	1.38	1.05	0.12	0.50
1-1/4"	4.62	0.62	2.31	1.66	0.81	0.81	2.25	0.81	1.70	1.72	1.38	0.19	0.56
1-1/2"	5.00	0.69	2.56	1.90	0.88	0.88	2.44	0.88	1.95	1.97	1.61	0.25	0.62
2"	6.00	0.75	3.06	2.38	1.00	1.00	2.50	1.00	2.44	2.46	2.07	0.31	0.69
2-1/2"	7.00	0.88	3.56	2.88	1.12	1.12	2.75	1.12	2.94	2.97	2.47	0.31	0.69
3"	7.50	0.94	4.25	3.50	1.19	1.19	2.75	1.19	3.57	3.60	3.07	0.38	0.75
3-1/2"	8.50	0.94	4.81	4.00	1.25	1.25	2.81	1.25	4.07	4.10	3.55	0.38	0.81
4"	9.00	0.94	5.31	4.50	1.31	1.31	3.00	1.31	4.57	4.60	4.03	0.44	-
5"	10.00	0.94	6.44	5.56	1.44	1.44	3.50	1.44	5.66	5.69	5.05	0.44	-
6"	11.00	1.00	7.56	6.63	1.56	1.56	3.50	1.56	6.72	6.75	6.07	0.50	-
8"	13.50	1.12	9.69	8.63	1.75	1.75	4.00	1.75	8.72	8.75	7.98	0.50	-
10"	16.00	1.19	12.00	10.75	1.94	1.94	4.00	1.94	10.88	10.92	10.02	0.50	-
12"	19.00	1.25	14.38	12.75	2.19	2.19	4.50	2.19	12.88	12.92	12.00	0.50	-
14"	21.00	1.38	15.75	14.00	2.25	3.12	5.00	-	14.14	14.18	13.25	0.50	-
16"	23.50	1.44	18.00	16.00	2.50	3.44	5.00	-	16.16	16.19	15.25	0.50	-
18"	25.00	1.56	19.88	18.00	2.69	3.81	5.50	-	18.18	18.20	17.25	0.50	-
20"	27.50	1.69	22.00	20.00	2.88	4.06	5.69	-	20.20	20.25	19.25	0.50	-
24"	32.00	1.88	26.12	24.00	3.25	4.38	6.00	-	24.25	24.25	23.25	0.50	-

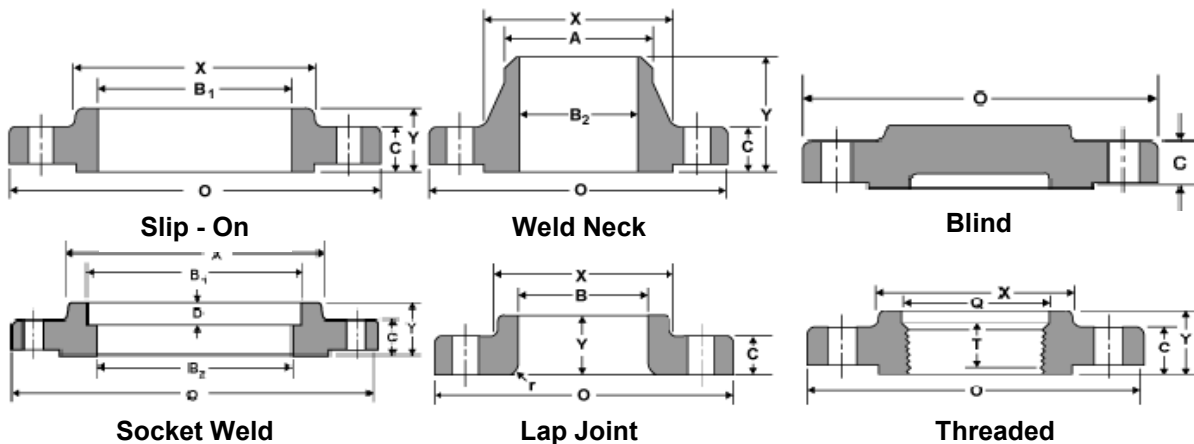
All dimensions given in inches.  
 Dimensions in accordance with ANSI B16.5

# Class 150 Flanges • Bolting Pattern & Bolt Lengths



Pipe Size	BOLTING PATTERN AND BOLTS LENGTHS					
	Dia. of Bolt Circle	Dia. of Bolt Holes	Number of Bolts	Dia. of Bolts	Machine Bolts	Stud Bolts
					0.006 in Raised Face	0.006 in Raised Face
1/2"	2.38	0.62	4	0.50	2.00	2.50
3/4"	2.75	0.62	4	0.50	2.25	2.50
1"	3.12	0.62	4	0.50	2.25	2.75
1-1/4"	3.50	0.62	4	0.50	2.50	2.75
1-1/2"	3.88	0.62	4	0.50	2.50	3.00
2"	4.75	0.75	4	0.62	2.75	3.25
2-1/2"	5.50	0.75	4	0.62	3.00	3.50
3"	6.00	0.75	4	0.62	3.25	3.75
3-1/2"	7.00	0.75	8	0.62	3.25	3.75
4"	7.50	0.75	8	0.62	3.25	3.75
5"	8.50	0.88	8	0.75	3.25	4.00
6"	9.50	0.88	8	0.75	3.50	4.00
8"	11.75	0.88	8	0.75	3.75	4.25
10"	14.25	1.00	12	0.88	4.25	4.75
12"	17.00	1.00	12	0.88	4.25	4.75
14"	18.75	1.12	12	1.00	4.50	5.25
16"	21.25	1.12	16	1.00	4.75	5.50
18"	22.75	1.25	16	1.12	5.00	6.00
20"	25.00	1.25	20	1.12	5.50	6.25
24"	29.50	1.38	20	1.25	6.00	7.00

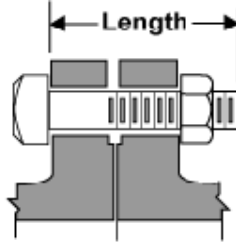
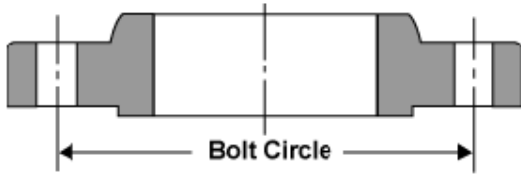
# Class 300 Flanges • Dimensional Specification



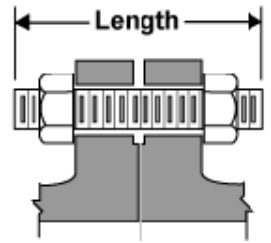
Pipe Size	O	C	X	A	Y	Y	Y	T	B1	B	B2	r	Q
	Outside Dia. of Flange	Thickness of Flange, Min.	Dia. of Hub	Dia. of Weld neck	Thd. Slip-On	Lap-Joint	Weld Neck	Thd. Lgth. Thd. Flange Min.	Slip-On, Min.	Lap-Joint, Min.	Weld neck / Socket Weld	Lap-Joint Flange Radii	Counter-bore Thd. Flange, Min.
1/2"	3.75	0.56	1.50	0.84	0.88	0.88	2.06	0.62	0.88	0.90	0.62	0.12	0.91
3/4"	4.62	0.62	1.88	1.05	1.00	1.00	2.25	0.62	1.09	1.11	0.82	0.12	1.14
1"	4.88	0.69	2.12	1.32	1.06	1.06	2.44	0.69	1.36	1.38	1.05	0.12	1.41
1-1/4"	5.25	0.75	2.50	1.66	1.06	1.06	2.56	0.81	1.70	1.72	1.38	0.19	1.75
1-1/2"	6.12	0.81	2.75	1.90	1.19	1.19	2.69	0.88	1.95	1.97	1.61	0.25	1.99
2"	6.50	0.88	3.31	2.38	1.31	1.31	2.75	1.12	2.44	2.46	2.07	0.31	2.50
2-1/2"	7.50	1.00	3.94	2.88	1.50	1.50	3.00	1.25	2.94	2.97	2.47	0.31	3.00
3"	8.25	1.12	4.62	3.50	1.69	1.69	3.12	1.25	3.57	3.60	3.07	0.38	3.63
3-1/2"	9.00	1.19	5.25	4.00	1.75	1.75	3.19	1.44	4.07	4.10	3.55	0.38	4.13
4"	10.00	1.25	5.75	4.50	1.88	1.88	3.38	1.44	4.57	4.60	4.03	0.44	4.63
5"	11.00	1.38	7.00	5.56	2.00	2.00	3.88	1.69	5.66	5.69	5.05	0.44	5.69
6"	12.50	1.44	8.12	6.63	2.06	2.06	3.88	1.81	6.72	6.75	6.07	0.50	6.75
8"	15.00	1.62	10.25	8.63	2.44	2.44	4.38	2.00	8.72	8.75	7.98	0.50	8.75
10"	17.50	1.88	12.62	10.75	2.62	3.75	4.62	2.19	10.88	10.92	10.02	0.50	10.88
12"	20.50	2.00	14.75	12.75	2.88	4.00	5.12	2.38	12.88	12.92	12.00	0.50	12.94
14"	23.00	2.12	16.75	14.00	3.00	4.38	5.62	-	14.14	14.18	13.25	-	-
16"	25.50	2.25	19.00	16.00	3.25	4.75	5.75	-	16.16	16.19	15.25	-	-
18"	28.00	2.38	21.00	18.00	3.50	5.12	6.25	-	18.18	18.20	17.25	-	-
20"	30.50	2.50	23.12	20.00	3.75	5.50	6.38	-	20.20	20.25	19.25	-	-
24"	36.00	2.75	27.62	24.00	4.19	6.00	6.62	-	24.25	24.25	23.25	--	--

All dimensions given in inches.  
 Dimensions in accordance with ANSI B16.5

# Class 300 Flanges • Bolting Pattern & Bolt Lengths



Machine Bolt With Nut



Stud Bolt With Nut

Pipe Size	BOLTING PATTERN AND BOLTS LENGTHS					
	Dia. of Bolt Circle	Dia. of Bolt Holes	Number of Bolts	Dia. of Bolts	Machine Bolts	Stud Bolts
					0.006 in Raised Face	0.006 in Raised Face
1/2"	2.62	0.62	4	0.50	2.25	2.75
3/4"	3.25	0.75	4	0.50	2.50	3.00
1"	3.50	0.75	4	0.50	2.75	3.25
1-1/4"	3.88	0.75	4	0.50	2.75	3.25
1-1/2"	4.50	0.88	4	0.50	3.00	3.75
2"	5.00	0.75	8	0.62	3.00	3.50
2-1/2"	5.88	0.88	8	0.62	3.50	4.00
3"	6.62	0.88	8	0.62	3.75	4.25
3-1/2"	7.25	0.88	8	0.62	3.75	4.50
4"	7.88	0.88	8	0.62	4.00	4.50
5"	9.25	0.88	8	0.75	4.25	4.75
6"	10.62	0.88	12	0.75	4.25	5.00
8"	13.00	1.00	12	0.75	4.75	5.50
10"	15.25	1.12	16	0.88	5.50	6.25
12"	17.75	1.25	16	0.88	6.00	6.75
14"	20.25	1.25	20	1.00	6.25	7.00
16"	22.50	1.38	20	1.00	6.50	7.50
18"	24.75	1.38	24	1.12	6.75	7.75
20"	27.00	1.38	24	1.12	7.25	8.25
24"	32.00	1.62	24	1.25	8.00	9.25

# Class 150 Flanges • Calculated Flange Weights in Lbs.

## Approximate Weights

Nominal Pipe Size	Outside Dia. (In)	Slip - On / Thd. Socket Weld	Weld Neck	Blind	Lap-Joint
1/2"	3.50	2	2	2	2
3/4"	3.88	2	2	2	2
1"	4.25	2	2	2	2
1-1/4"	4.62	3	4	3	3
1-1/2"	5.00	3	5	4	3
2"	6.00	5	9	4	5
2-1/2"	7.00	7	11	11	7
3"	7.50	8	14	14	8
3-1/2"	8.50	11	15	13	11
4"	9.00	13	16	19	13
5"	10.00	15	21	21	15
6"	11.00	19	25	28	19
8"	13.50	30	40	48	30
10"	16.00	42	56	70	42
12"	19.00	64	86	105	64
14"	21.00	85	111	135	99
16"	23.50	94	141	176	128
18"	25.00	120	153	214	146
20"	27.25	155	188	284	185
24"	32.00	210	270	398	260

# Class 300 Flanges • Calculated Flange Weights in Lbs.

## Approximate Weights

Nominal Pipe Size	Outside Dia. (In)	Slip - On / Thd. Socket Weld	Weld Neck	Blind	Lap-Joint
1/2"	3.75	3	4	2	3
3/4"	4.62	3	4	3	3
1"	4.88	3	5	4	3
1-1/4"	5.25	4	6	6	4
1-1/2"	6.12	6	9	7	6
2"	6.50	7	10	8	7
2-1/2"	7.50	10	13	15	10
3"	8.25	13	16	16	13
3-1/2"	9.00	17	19	20	17
4"	10.00	22	26	27	22
5"	11.00	28	35	41	28
6"	12.50	39	45	50	39
8"	15.00	58	70	80	58
10"	17.50	82	94	120	91
12"	20.50	115	140	184	139
14"	23.00	163	190	249	-
16"	25.50	220	250	324	-
18"	28.00	280	305	416	-
20"	30.50	325	380	516	-
24"	36.00	492	540	763	-